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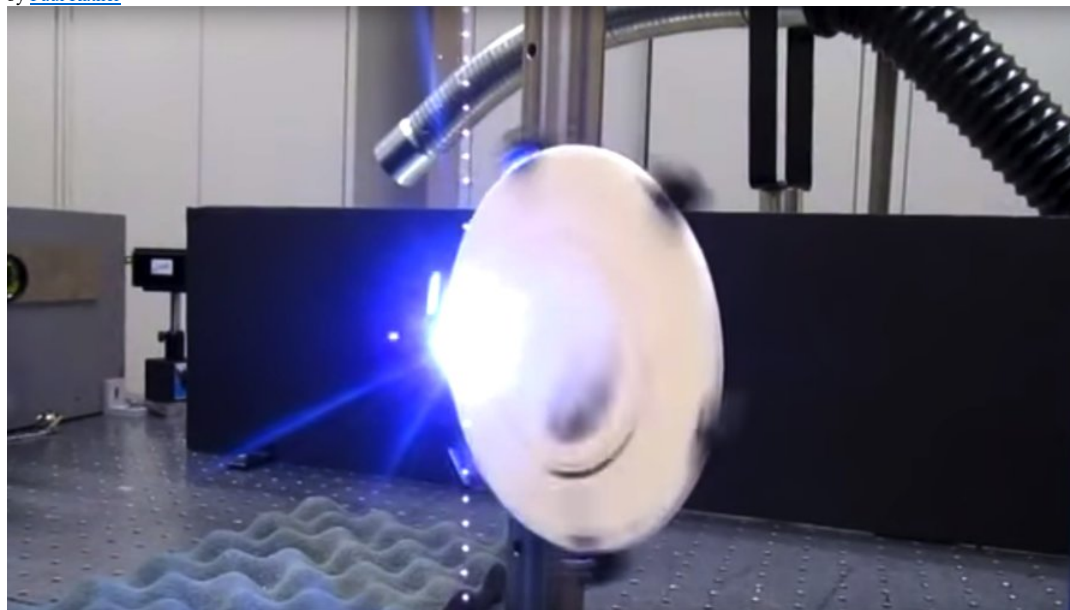
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## The U.S. military has a weapon that can create human speech out of thin air

• March 25, 2018

by [Paul Ratner](#)



Credit: Department of Defense

The purpose of a modern military is hopefully not to go out and fight people outright but to scare them from attacking you, thus keeping the peace. At least, that's how nuclear deterrence works. On the other side, the Department of Defense has also developed what it calls a [Joint Non-Lethal Weapons Program \(JNLWP\)](#), whose purpose is to create weapons and other contraptions that can incapacitate but not kill their targets, [reports Defense One](#).

One device that the lab is making is an energy weapon that can use lasers to create the Laser-Induced Plasma Effect, which allows it to alter atoms and create words out of thin air. For now, it makes strange human-like sounds, but intelligible words are coming within the next three years. The goal is to have the weapon create particular noises or heat at distant points in space. Anyone between the weapon and the place where it creates this effect would be unaffected. The current range of such a blast is projected at “tens of kilometers”.



x

This weapons system is comprised of a [femtosecond laser](#) that can shoot bursts of focused light for around 10-15 seconds and a second nano-laser. The first laser rips electrons from air molecules and creates a plasma ball, which is then hit by the second laser, tuned to a very specific range of wavelengths. In this way, the device can control the plasma field, producing lights and increasingly more clear noises.

**David Law**, in charge of the JNLWD’s technology division, is very bullish on their tech:

“We’re *this close* to getting it to speak to us. I need three or four more kilohertz,” [said Law](#).

Check out the device’s demonstration (you might want to lower the volume first):

#### The Joint Non-Lethal Weapons Directorate's Experimental Plasma Effects Weapon



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[In DoD speak](#), the idea behind non-lethal weapons is to minimize fatalities and permanent injuries to personnel, with the intention to produce “reversible effects.” They can fill the gap between the stages of “shouting and shooting,” hopefully leading to a de-escalation of force. Such tools can also let the commanding officer bolster or pull back their response to the target as the situation fluctuates.

One particular place where non-lethal weapons can come in handy is complex urban terrains packed with civilians. Other scenarios where they can be utilized include security at checkpoints, serving as warnings in convoy operations, providing security in humanitarian operations and for crowd management.

Here is more in-depth footage from the testing of the energy weapon:

The Joint Non-Lethal Weapons Directorate recent direct energy demonstrations



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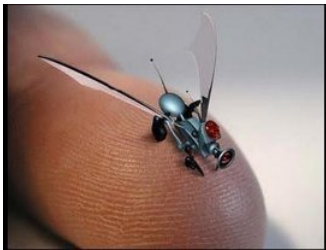
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